ODP 1675-77
22 AUG 1977

MEMORANDUM FOR: Acting Deputy Director for Administration

FROM : Clifford D. May, Jr.
Director of Data Processing

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SUBJECT : [redacted] Report on SAFE/ADISS

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1. In anticipation of your participation in the STATINTL scheduled 25 August [redacted] presentation for the DCI, I have enclosed some reference material for your information. Enclosure 1 is a summary of the [redacted] presentation prepared by [redacted] Enclosure 2 lists the main findings in [redacted] Enclosure 3 is a complete set of charts used in the first [redacted] presentation to Agency and DIA representatives (key charts are tabbed).

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2. The significant findings are:

a. A joint project office would not be effective.

b. A Coordinating Committee should be established to oversee, coordinate, and control development activities of separate project offices.

c. A single system is most expensive.

d. Duplicate systems with partial commonality in application software are least expensive.

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e. Costs will be greater than current budget estimates.

3. We do not believe that the [redacted] proposed management arrangement is the best way to pursue the project if it is aimed at achieving the most economic alternative (duplicate systems with partial commonality in applications software). Instead, we believe that a joint project office, as described in the CIA/DIA-developed SAFE/ADISS Joint Management Plan, is the best way. We understand that this Plan will soon be sent to the DCI by John McMahon. Under this Plan, a CIA/DIA jointly manned project office would pursue the SAFE development

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as the vehicle for the duplicate systems to be employed by both CIA and DIA. ADISS requirements would be folded into the SAFE development as they become available from the DIA studies. Aside from this one major point of disagreement, we are generally in agreement with the [redacted] findings.

STATINTL 4. If either you or the Acting DDCI would like Mr. [redacted] to walk you through the [redacted] charts in advance of
STATINTL the meeting, please let me know.

[redacted]

Clifford D. May, Jr.

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This is a summary of the [redacted] SAFE/ADISS Commonality Study

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1. This study was contracted to examine all aspects of commonality between the CIA's SAFE System and the DIA's ADISS. These aspects of commonality include requirements, functions, organization, cost, and operation. The study consisted of an examination of documents and interviews of personnel by a [redacted] [redacted] team over a sixty day period.

2. Summary of findings:

a. The two Agencies should pursue coordinated programs, develop identical hardware/utility software configurations to be installed separately in each Agency. Applications software should be separate but coordinated.

b. Each organization should focus on the unique aspects of its mission and a separate and new resource management group should be developed on an equal status with the projects in each Agency to ensure coordination. This new group would provide system engineering; control the quality assurance and test and evaluation activities; oversee the data base activities and control the funding for the two projects.

c. The proposed organization chart is enclosed showing only one project office which would be replicated for the other Agency.

3. Relative Status:

a. Neither system has developed an "A" specification. The SAFE activity is one to two years ahead of the ADISS in requirements and program planning (rather than in actual development.) It is noted that while the SAFE System is dedicated fundamentally to support analysts in their every day work, the major function of the ADISS System is information storage and retrieval. SAFE is more supported by precedent research and development and experience with the pilot SAFE effort. It also has a highly

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focused management effort and considerable detailed planning. The function requirements have not to date been reconciled with the new budget. Some of the requirements appear excessive. ADISS on the other hand is driven by the current limitation of the DIAOLS System which was implemented in the GE Machine Code and has evolved in a patch-work fashion to the point of saturation of its capabilities. DIAOLS also does not support the analysts in the sense that SAFE is intended and the interface to the rest of DODIIS is at present not well defined. An additional need was surfaced within DIA for an ADSTAR-like capability which has not yet been addressed as an ADISS requirement.

4. Security:

a. A need for multi-level security within the system was discussed but not resolved. It is not clearly understood what security exists within the DIAOLS System at the present time. It is not clear what type of security within the system will be adequate within the environment. This could become an overiding factor with reference to system commonality.

5. Common Elements:

a. It is felt the following developments have high potential for commonality:

1. Systems level hardware and its configuration. It is felt that both systems could use the same computer processers and standard peripherals along with concentrators and controllers.

2. Operating systems software;

3. The utilitarian software functions of message handling, text search and command language were also identified as common development candidates.

b. It was felt that the applications software should be unique to the organization as it related more to the particular mission functions of the Agencies.

c. Other significant differences are as follows - ADISS focuses on large structured master files while SAFE/ADSTAR focused on analyst support using catalog files, message handling and analysis and data collection and correlation. Further ADISS must interface with DODIIS and U and S Commands while the SAFE is primarily contained within the analyst community.

6. Two hypothetical systems of $75 million cost each were analyzed for saving as a result of several modes of coordination. These modes are: a) totally separate systems with no coordination, b) duplicate systems but with separate development, c) duplicate systems with partial commonality and d) a single hardware software configuration to satisfy both. Compared with separate costs of $150 million, the minmium cost plan was for a duplicate system of hardware and operating software system with partial commonality of application software of $114 million and maximum cost of a single system to satisfy both at a cost of $171 million. It should be noted that all of these costs are relative and not meant to be representative of the estimated system cost. The principal areas of savings and of expansion of costs in these alternatives was in the operating software, application software and test and evaluation.

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7. Managment and Organization - [redacted] felt that a single project office was not appropriate for the following reasons:

a. Reduced productivity - the complex task of satisfying problems would be faced at each design step. Furthermore, basic policy issues would be created throughout the design process. The paper work and time consumed in resolving these issues was felt to be a major factor in delaying the system IOC.

b. Hazy fiscal environment. It was felt that there would be a loss of clear accountability and concern over the value each Agency was

receiving for the money spent.

c. Loss of Project Management control. It was felt that the priorities of the Agencies, the schedule of developments of the system, the performance requirements for various sub-systems would all be pulling in conflicting directions with the Project requiring extensive third party involvement to resolve conflicts.

d. There would be a hazard of unsatisfactory user utility as a result of compromise resolution of problems.

8. The organization relationship is shown in the attached chart. The JRMO would control the expenditure of funds by both projects, would do the systems engineering trade-offs required, and would exercise coordination control over the data bases administrators and QA functions.

9. A data base administrator was discussed at some length. The data base "Czar" would be responsible for the structure and content of master files and would provide guidance for construction and use for private files.

10. Implementation of a SAFE/ADISS Program - The following actions were recommended to begin immediately.

a. Each project should have deputy project managers assigned from the other Agency.

b. The JRMO should run specification reviews for both projects.

c. There should be a joint SAFE/ADISS architecture study with the results being incorporated in the SAFE A specifications.

d. There should be a joint data base czar under the JRMO from the DIA with a CIA deputy

e. DIA should develop a separate DODIIS plan with a specification available prior to the SAFE/ADISS B specifications.

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Summary: SAFE/ADISS Systems Study

Findings

a) Pursue a coordinated program through separate projects - coordinated by a separate (new) office.

b) Establish "Resource Management" group on equal basis with projects to coordinate common effort.

c) A joint project office would not be effective.

d) Use identical hardware and system software in separate systems.

e) Develop common application software separately coordinated through JRMO.

f) Exploiting commonality can save 25% over separate developments.

g) One system for two agencies would cost 15% more than separate options and 50% more than separate systems optimizing commonality.

h) SAFE is one to two years further into definition and development than ADISS.

i) A system architecture should be developed and approved early to satisfy both needs.

j) SAFE should reduce requirements for text search, word processing and number of terminals. Should add annotations capability to ADSTAR.

k) The two systems have similar architectural and operational implications.

l) There are significant differences.

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